

University of Groningen

Valorization of bio-based alcohols using catalytic technology

Kumalaputri, Angela Justina

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2017

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Kumalaputri, A. J. (2017). *Valorization of bio-based alcohols using catalytic technology*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

STELLINGEN

Behorende bij het proefschrift

Valorization of Bio-based Chemicals using Catalytic Technology

door Angela Justina Kumalaputri

1. DMF can be obtained by HMF hydrogenation with a Cu-based catalyst at relatively mild conditions (220 °C, 50 bar) in a non-toxic solvent (this thesis, Chapter 2 and 3).
2. The observation by Nan Yao *et al.* that the use of polyethylene glycol (PEG) during nanoparticle synthesis leads to smaller Ni nanoparticles is highly unlikely (Nan Yao *et al.*, J. Mater. Chem. 21 (2011) 17403-17412).
3. The observation by Onwudili *et al.* that the use of Ru-based catalysts for the gasification of biomass in supercritical water leads to gases enriched in hydrogen instead of methane is highly surprising (J. A. Onwudili *et al.*, Applied Catalysis B: Environmental 132-133 (2013) 70-79).
4. The conclusion by Pei *et al.* that gasification of biomass at lower temperatures favors hydrogen formation instead of methane is highly doubtful (A. Pei *et al.*, Front. Energy Power Eng. China (2009) 456-464).
5. The terms 'selectivity' and 'yield' are often used incorrectly (G. C. A. Luijkx *et al.*, Recueil des Travaux des Pays-Bas 110 (1991) 343-344 and G. C. A. Luijkx, *et al.*, Carbohydr. Res. 242 (1993) 131-139).
6. In contrast to reports by Modell *et al.*, biomass gasification in supercritical water will always lead to solids formation (M. Modell *et al.*, Gasification process, US Patent 4113446, 1978).
7. Peaks in HPLC, GC or NMR spectra are just like major and minor melodies in music. When joined together they become a perfect harmony.
8. "I put my heart and my soul into my work, and I have lost my mind in the process" (Vincent van Gogh).
9. The years to finish a PhD shows a linear relation with the number of lost teeth: number of lost teeth = $\text{PhD}_{\text{time}} + 1$.
10. "All things work together for the good" (Rome 8:28, KJV version).